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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,653	08/08/2001	Kee Yean Ng	70980061-2	5527

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AGILENT TECHNOLOGIES  
Legal Department, 51U-PD  
Intellectual Property Administration  
P.O. Box 58043  
Santa Clara, CA 95052-8043

EXAMINER

LEURIG, SHARLENE L

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/924,653

Applicant(s)

NG, KEE YEAN

Examiner

Sharlene Leurig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13, drawn to a light-emitting device, classified in class 313, subclass 499.
- II. Claims 14-18, drawn to a method of making a light-emitting device, classified in class 445, subclass 25.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a process that does not involve applying a settable coating material containing a dye compound.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Hertbert Schulze on May 13, 2003 a provisional election was made without traverse to prosecute the invention of Group I,

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claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

*Claim Rejections - 35 USC § 112*

6. Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For the purposes of examination the limitation of a coating of silver will be interpreted as an open-ended limitation, meaning reflective coatings other than silver may be used.

*Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 6-8, 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (3,555,335) in view of Komoto et al. (6,340,824).

Regarding claim 1, Johnson discloses a light-emitting device comprising a light emitter (Figure 5, element 30) disposed above a base substrate (striped element), the base substrate having a projecting platform (31) on which the light emitter is mounted,

such that the projecting platform supports the light emitter at a prescribed distance from the surrounding base substrate.

Regarding claim 2, the projecting platform is formed as an integral part of the base substrate (see Figure 5, element 31 and surrounding striped element).

Regarding claim 6, the base substrate comprises a planar base portion (33) and a sloping wall portion (34, 35) to provide reflection of light emitted by the light emitter (column 3, lines 39-44). The element 33 can be considered to be planar because it is made of flat planes and it can be considered to be a base portion because it is near the bottom of the cavity.

Regarding claim 7, the sloping wall (34 or 35) is of a general frustoconical form surrounding the projecting platform and provides a generally annular planar base portion around the projecting platform, where element 33 is interpreted as being the planar base portion following the argument discussed above regarding claim 6. The sloping wall is interpreted as being frustoconical because each section of the wall (34, 35) is formed as a shape of section of an inverted cone.

Regarding claim 8, the base substrate is coated with a reflective medium (column 3, lines 65-68).

Regarding claim 13, the light emitter is an LED (column 1, lines 3-4).

Regarding claims 1, 10 and 11, though Johnson discloses a color filter incorporated into the casting resin of the device to achieve a desired optical effect, it lacks explicit disclosure of a coating material applied over the light emitter.

It is well known in the art to provide a coating of dye or phosphor over a light emitter to achieve a desired optical effect.

Regarding claim 1, Komoto teaches a coating material (Figures 24, 47, 103, 122, element FL) formed over a light emitter.

Regarding claim 10, the coating material absorbs light of a wavelength emitted by the light emitter and reemits light of a different wavelength (column 15, line 42-47).

Regarding claim 11, the fluorescent or luminescent material taught by Komoto may be an inorganic dye (column 15, line 46).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitter of Johnson with a coating layer formed over the light emitter, as taught by Komoto, to modify the light emitted to achieve the desired effect.

9. Claims 1 and 3-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over (JP 62-235787) in view of Komoto et al. (6,340,824).

Regarding claim 1, JP 62-235787 discloses a light-emitting device comprising a light emitter (Figure 1, element 25) disposed above a base substrate (24), the base substrate having a projecting platform (36) on which the light emitter is mounted, such that the projecting platform supports the light emitter at a prescribed distance from the surrounding base substrate.

Regarding claims 1, 10 and 11, JP 62-235787 lacks disclosure of a coating material applied over the light emitter.

It is well known in the art to provide a coating of dye or phosphor over a light emitter to achieve a desired optical effect.

Regarding claim 1, Komoto teaches a coating material (Figures 24, 47, 103, 122, element FL) formed over a light emitter.

Regarding claim 10, the coating material absorbs light of a wavelength emitted by the light emitter and reemits light of a different wavelength (column 15, line 42-47).

Regarding claim 11, the fluorescent or luminescent material taught by Komoto may be an inorganic dye (column 15, line 46).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitter of JP 62-235787 with a coating layer formed over the light emitter, as taught by Komoto, to modify the light emitted to achieve the desired effect.

Regarding claim 3, the projecting platform disclosed in JP 62-235787 is a discrete component, attachable to the base substrate (Abstract Constitution lines 1-5).

Regarding claim 4, the projecting platform and the base substrate disclosed in JP 62-235787 are made of different materials (Abstract Constitution lines 1-5).

Regarding claim 5, the base substrate disclosed in JP 62-235787 comprises a metal (Abstract Constitution line 1) and the projecting platform comprises a material able to efficiently dissipate heat generated by the light emitter (Abstract Purpose lines 3-6).

Regarding claim 6, the base substrate disclosed in JP 62-235787 comprises a planar base portion (element on which element 36 is formed) and a sloping wall portion

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(34) to provide reflection of light emitted by the light emitter (Abstract Constitution lines 11-13).

Regarding claim 7, the sloping wall (34) disclosed in JP 62-235787 is of a frustocoidal form surrounding the projecting platform and provides a generally annular planar base portion around the projecting platform.

Regarding claim 8, the base substrate disclosed in JP 62-235787 is coated with a reflective medium (Abstract Constitution lines 11-13).

Regarding claim 9, JP 62-235787 lacks disclosure of a reflecting material covering the sloping walls as well as the surface of the projecting platform.

Komoto teaches a reflective material formed over the sloping walls and light emitter, filling the entire cavity containing the light emitter (Figure 111, element 2140a (RE1)). Therefore if combined with the disclosure of the projecting platform in JP 62-235787, the reflective coating would also cover the surface of the projecting platform.

Therefore regarding claim 9 it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light emitter disclosed in JP 62-235787 to have a reflective coating layer filling the cavity containing the emitter, as taught by Komoto, which would cover the surface of the projecting platform to achieve the desired optical effect.

Regarding claim 12, a lens (32) disclosed in JP 62-235787 to focus the emitted light is formed above the light emitter. The coating material as taught by Komoto is formed directly over the light emitter and therefore the lens disclosed in JP 62-235787 would be positioned over the coating material.



Regarding claim 13, the light emitter disclosed in JP 62-235787 is an LED  
(Abstract Constitution line 12).


*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (703)305-4745. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Sharlene Leurig  
May 16, 2003



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